

Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJI.004

**BEST AVAILABLE COPY**

**AMENDMENTS TO THE CLAIMS:**

1. (Currently amended) A disk drive apparatus for controlling, under supply of a power voltage of ~~a level equal to or smaller than~~ having a predetermined rating level, a head drive section to position a head in a radial direction of an information recording disk and carry out a write and/or read operation of information while rotatively driving the information recording disk by a rotation drive motor, said disk drive apparatus comprising:

a forcible restoring section for controlling said head drive section to forcibly bring said head to a retract position when said power voltage goes below a first voltage level smaller than said rating level; and

a normal restoring section for controlling said head drive section to move said head toward said retract position on the basis of said power voltage when said power voltage goes below a second voltage level smaller than said rating level but greater than said first voltage level.

2. (Previously presented) A disk drive apparatus according to claim 1, wherein said information recording disk comprises a magnetic disk.

3. (Previously presented) A disk drive apparatus according to claim 2, wherein said head comprises a magnetic head, and said retract position includes a ramp provided for said magnetic head to run thereon.

**BEST AVAILABLE COPY**

Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJI.004

4. (Previously presented) A disk drive apparatus according to claim 1, wherein said power voltage comprises a voltage based on a battery voltage of a vehicle-mounted battery to be charged by a generator operating responsive to rotation of a vehicle-mounted engine.
5. (Previously presented) A disk drive apparatus according to claim 4, further comprising a microprocessor for operating said forcible restoring section and said normal restoring section with said power voltage.
6. (Previously presented) A disk drive apparatus according to claim 4, wherein said recording disk has navigation information recorded thereon, and said apparatus is mounted in a vehicle.
7. (Previously presented) A disk drive apparatus according to claim 6, wherein only a battery voltage to said disk drive apparatus is monitored to detect variation in said power voltage.
8. (Currently amended) A disk drive apparatus for controlling, under supply of a power voltage, a position of a read/write head in a radial direction of an information recording disk, to bring the head to a periphery of the information recording disk under low power conditions, said disk drive apparatus comprising:
  - a rotation drive motor for rotating the information recording disk;
  - a head drive section for driving the head over the information recording disk;
  - a voltage value monitor for monitoring the value of the power voltage; and

Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJI.004

**BEST AVAILABLE COPY**

a controller, responsive to the monitored value of the power voltage being above a first predetermined level, for providing the power voltage to said rotation drive motor to rotate the information recording disk and to said head drive section to drive the head in a first direction, wherein:

said controller is responsive to the monitored value of the power voltage being equal to or less than the first predetermined level and above a second predetermined level for providing the power voltage to said head drive section to drive the head toward the periphery of the information recording disk, and

said controller is further responsive to the monitored voltage being equal to or less than the second predetermined level for providing reverse electromotive force from said rotation drive motor to said head drive section to drive the head to the periphery of the information recording disk.

9-10. (Canceled)

11. (Previously presented) A disk drive apparatus according to claim 8, further comprising an information recording disk having navigation information recorded thereon.

12. (Previously presented) A disk drive apparatus as claimed in claim 8, further comprising a ramp adjacent the periphery of the disk for supporting the head when said head drive section is not driving the head.

Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJI.004

**BEST AVAILABLE COPY**

13. (Previously presented) A disk drive apparatus as claimed in claim 8, wherein the power voltage is provided from a vehicle-mounted generator, and said voltage value monitor is adapted to monitor the voltage from the vehicle mounted generator.

14. (Currently amended) A disk drive apparatus, comprising:  
a rotation drive motor for rotating an information recording disk;  
a read/write head for reading and writing information on the information recording disk;  
a head drive motor for driving the head over the information recording disk;  
a voltage input for providing voltage to said rotation drive motor and to said head drive motor;  
a voltage value monitor for monitoring the value of the voltage provided by said voltage input; and  
a controller, responsive to the monitored voltage value being above a first predetermined level, for providing voltage from said voltage input to said rotation drive motor to rotate the information recording disk and to said head drive motor to drive the head in a first direction, wherein:

said controller is responsive to the monitored voltage value being equal to or less than the first predetermined level and above a second predetermined level for providing voltage from said voltage input to said head drive motor to drive the head toward the periphery of the information recording disk, and

said controller is further responsive to the monitored voltage value being equal to or less than the second predetermined level for providing reverse electromotive force from said

Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJI.004

rotation drive motor to said head drive motor to drive the head to the periphery of the  
information recording disk.

15-16. (Canceled)

17. (Previously presented) A disk drive apparatus according to claim 14, further comprising an information recording disk having navigation information recorded thereon.

18. (Previously presented) A disk drive apparatus as claimed in claim 14, further comprising a ramp adjacent the periphery of the disk for supporting said head when said head drive section is not driving the head.

19 (Previously presented) A disk drive apparatus as claimed in claim 14, wherein said voltage input is adapted to receive voltage from a vehicle-mounted generator.

20. (Previously presented) A disk drive apparatus as claimed in claim 19, wherein said voltage value monitor is adapted to monitor the voltage from the vehicle mounted generator.

21. (Previously presented) A disk drive apparatus according to claim 14, wherein said controller comprises:

a head drive control circuit for controlling said head drive motor to drive the head to a desired position over the information recording disk; and  
a processor for providing instructions to said head drive control circuit.

Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJI.004

22. (Previously presented) A disk drive apparatus for controlling, under supply of a power voltage of a level equal to or smaller than a predetermined rating level, a head drive section to position a head in a radial direction of an information recording disk and carry out a write and/or read operation of information while rotatively driving the information recording disk by a rotation drive motor, said disk drive apparatus comprising:

first means for controlling said head drive section to forcibly bring said head to a retract position when said power voltage goes below a first voltage level, smaller than said rating level; and

second means for controlling said head drive section to move said head toward said retract position on the basis of said power voltage when said power voltage goes below a second voltage level smaller than said rating level but greater than said first voltage level.

23. (Previously presented) A disk drive, comprising:

a rotation drive motor for rotating an information recording disk;

a head for reading and/or writing information onto and/or from the information recording disk;

a voltage input for receiving a predetermined rating level of a power voltage;

a detector for detecting an abrupt decrease in the power voltage;

a forcible restoring section, responsive to detection of an abrupt decrease in the power voltage to level less than a first predetermined level, lower than the rating level, for moving said head in a direction toward an outer periphery of the information recording disk under power of reverse electromotive force from said rotation drive motor; and

Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJI.004

a normal restoring section, responsive to detection of an abrupt decrease in the power voltage to a second predetermined level, lower than the rating level and equal to or greater than the first predetermined level, for moving said head in a direction toward an outer periphery of the disk under power of voltage from said voltage input.

24. (Previously presented) A method of controlling a head drive section to position a head in a radial direction of an information recording disk and carry out a write and/or read operation of information, said method comprising:

providing power voltage to a rotation drive motor to rotate the information recording disk;

in response to the power voltage falling to a value equal to or less than a first predetermined voltage value, moving the head toward a retract position under power of the power voltage; and

in response to the power voltage falling to a value equal to or less than a second predetermined voltage value, less than the first predetermined voltage value, forcibly moving the head to the retract position.

Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJI.004

**REQUEST FOR WITHDRAWAL OF FINALITY OF REJECTION**

A Request for Withdrawal of Finality of Rejection was filed December 13, 2004, requesting that the finality of the October 12, 2004 Office Action be withdrawn as premature. When no response to that Request had been received by March 16, 2005, the undersigned attorney telephoned Examiner Kin C. Wong and left a message requesting that Examiner Wong return the call. Examiner Wong returned the call later that day, but did not agree to withdraw the finality of the Office Action. The undersigned attorney filed a Record of Telephone Interview and Renewed Request for Withdrawal of Finality of Rejection on March 18, 2005. No written response to either Request has been received, and no Interview Summary has been received from Examiner Wong as to the March 16, 2005 telephone interview.

Withdrawal of the finality of the Office Action of October 12, 2004 is again requested. The courtesy of a written response to the repeated Requests for Withdrawal of Finality of Rejection is respectfully requested. In the event the response does not withdraw the finality, and still rejects the claims, it is requested that the reasoning behind not withdrawing the finality be clearly set forth, as well as the reasoning in still rejecting the claims.

In rejecting the claims, the Office Action of October 12, 2004 relies on Pennock, U.S. Patent No. 4,885,517. Pennock was first cited in an Office Action dated March 17, 2004, but in that Office Action Pennock was not used as a ground of rejection of the claims in the application. In response to that rejection, the claims were amended only as to form.

Attached is a copy of claim 1 as amended in the Amendment filed June 16, 2004. As can be seen, the preamble of claim 1 was amended to replace "under supply of a



Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJI.004

predetermined rating voltage of power voltage” with “under supply of a power voltage of a level equal to or smaller than a predetermined rating level.” If the disk drive apparatus was “under supply of a predetermined rating voltage,” then during such time the power voltage was “of a level equal to the predetermined rating voltage.” Later original claim 1 described the power voltage as being “smaller than said rating voltage,” and during such time the power voltage was “of a level smaller than the rating voltage.” Consequently, this amendment to the preamble did not change the scope of claim 1.

Further, the preamble is not an element of the claimed disk drive apparatus. *Kropa v. Robie*, 187 F2d 150, 88 USPQ 478 (CCPA 1951). Thus, the amendment to the preamble could not affect the scope of claim 1.

Claim 1 was also amended to explicitly recite that certain action takes place when the power voltage goes below a first voltage level smaller than the rating level and to recite that other action takes place when the power voltage goes below a second voltage level smaller than the rating level but greater than the first voltage level. Prior to that amendment, claim 1 recited that certain action takes place when the power voltage goes below the first voltage level, and that other action takes place when the power voltage is smaller than the rating voltage but greater than the first voltage level.

If the power voltage is smaller than the rating voltage but greater than the first voltage level, then clearly the power voltage is below a second voltage level that is smaller than the rating level but greater than the first voltage level, perhaps only infinitesimally smaller, but nevertheless smaller. Thus, that amendment only affected the form of the claim.

Likewise, if the power voltage is smaller than the rating level but greater than the first voltage level, then the first voltage level is also smaller than the rating voltage, and so that

Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJI.004

amendment only affected the form of the claim.

Accordingly, the amendment of claim 1 did not necessitate reliance on Pennock to reject the claim.

Turning to claims 8 and 14, those claims were amended only to delete reference to the "first speed." During a telephone interview March 16, 2005, Examiner Kin C. Wong contended that this changed the scope of claims 8 and 14 because with the reference to "first speed," the claim indicated that the head was driven, powered, or moved by inertia. *Assuming that to be so*, deletion of "at a first speed" did not change the scope of the claim. If the head is moved, whether toward the retract position or in any direction, it is moving at some speed. Whether that motion is caused by the head being driven, powered, or moved by inertia is irrelevant. Any motion takes place at some speed. Since no other speed is indicated in either claim 8 or claim 14, that is "a first speed." Thus, with or without inclusion of the words "at a first speed" in claims 8 and 14, the head is moving "at a first speed," and so the scope of those claims is the same with or without those words.

Clearly, deletion of "at a first speed" did not change the scope of claims 8 and 14, and so did not necessitate reliance on Pennock to reject those claims.

MPEP §707.07(g) states:

"Piecemeal prosecution should be avoided as much as possible. The examiner ordinarily should reject each claim on all valid grounds available". (Emphasis added.)

MPEP §706.07(a) states:

"Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p)." (Emphasis added.)

Serial No.: 09/839,539  
Docket No. PU01-0171  
FUJL004

Pennock was clearly a new ground of rejection that was not necessitated by Applicants' amendment of the claims. Pennock was not submitted in an Information Disclosure Statement.

The Office Action of October 12, 2004 violates both MPEP §707.07(g) and MPEP §706.07(a). Clearly, if Pennock provides valid grounds for rejection of the claims as amended in the Amendment of June 16, 2004, then it also provided valid grounds for rejection of the claims prior to that Amendment. In such event, not using Pennock as one of the grounds for rejection in the March 17, 2004 Office Action, but doing so in the October 12, 2004 Office Action constitutes piecemeal prosecution.

Clearly, also, using Pennock as a ground of rejection in the Office Action of October 12, 2004 introduces a new ground of rejection that was neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p).

Accordingly, the October 12, 2004 Office Action should not have been a final rejection, and so withdrawal of the finality of the rejection is requested.

During the telephone interview of March 16, 2001, Examiner Wong contended that Pennock provided a proper basis for rejection of the amended claims. However, the issue is not whether Pennock provides a proper basis for rejection of the claims, but rather the issue is whether reliance on Pennock to reject the claims was necessitated by the amendments to the claims. As shown above, the scope of claim 1 was not changed by the amendments, and so the amendments did not necessitate reliance on Pennock.

Applicant is entitled to the opportunity to amend the claims, if necessary, to any

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☐ **BLACK BORDERS**

☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**

☒ **FADED TEXT OR DRAWING**

☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**

☐ **SKEWED/SLANTED IMAGES**

☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**

☐ **GRAY SCALE DOCUMENTS**

☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**

☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**

☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**